

# The Dynamics of Global Cities and Global Commerce



Worldwide Centers of Commerce™ Insights

2Q 2007



## Executive Summary<sup>1</sup>

The leading cities in the world today provide the fundamental architecture of global commerce. A key feature of this architecture is that it contains both the capabilities for organizing enormous geographic dispersal and mobility of economic and business activities; and the capabilities for maintaining centralized control over that dispersal. Much of the management and servicing of global commerce takes place in this dynamic network of global cities, which has contributed to a revival and repositioning of cities both nationally and globally.

While sovereign states are still the main global actors, they have lost at least some economic, political and symbolic ground to global cities. Today, the 100 richest global service firms in the world are richer than all but the 20 richest countries of the world. The major international flows of people were once coordinated by states, but today are more likely to be comprised of immigrants, transnational professionals, and tourists moving along the different intercity geographies that crisscross the planet.

In many parts of the world and among many population groups, urban culture today is a far more compelling image than national culture, and is being increasingly experienced as part of a transnational urbanity. In this context and for global businesses, understanding the role of global cities and the associated intercity geographies is a prerequisite to gaining real insights into the dynamics of today's global commerce. It is not an exaggeration to say that real insights into global commerce today are not possible without a deep understanding of the dynamics of cities around the globe.

Much is known about the wealth and power of today's corporations. Their ascendancy in a globalizing world is no longer surprising. New information and communication technologies are typically seen as the handmaidens of economic globalization – both as tools and as infrastructure. Less clear is why cities should matter more today than they did during the growth of international trade in the second half of the last century. Today a growing number of cities are emerging as strategic nodes that contribute to a new architecture of global commerce. Cities, whether in

highly developed countries or in emerging markets, are being rebuilt and reinvented as platforms for a rapidly growing range of globalized activities and flows, from economics to finance, from culture to politics.

## Intercity Geographies

One way of thinking about the global economy today is in terms of the many highly specialized “circuits,” global flows of business transaction and financial investment that comprise it. Different circuits encompass different groups of cities. Viewed this way, the global economy becomes concrete and specific, with a well-defined geography. These circuits, the lifeblood of economic activities, are increasingly being organized by such an “intercity” geography. The planet is crisscrossed by these circuits and networks of flow and connectivity. Gaining a deeper understanding of this intercity geography is vital to understanding global commerce; in terms of its vast business potential and opportunities, and its challenges to public policies and business management.

The formation of intercity geographies today has helped create a new global infrastructure for trade, financial flows, commerce, and cultural and social networks. Some of these intercity geographies are broad and highly visible – the flows of professionals, tourists, artists, and migrants among specific groups of cities, for example. Others are barely visible – the highly specialized electronic financial trading networks and global commodity chains that run from exporting hubs to importing hubs, for instance.

These circuits are multidirectional and span the world, feeding into intercity geographies through cities that serve as strategic nodes. Some of the functions of these strategic nodes are counterintuitive. For instance, New York is the leading global market for trading financial instruments on coffee even though it does not grow a single bean. Buenos Aires, on the other hand, is the leading global market for trading financial instruments on sunflower seeds. Similarly, tracking the global circuits of gold as a financial instrument will show the dominance of London, New York, Chicago, and Zurich. Tracking direct trading in the other metals, in comparison, brings Johannesburg, Mumbai, Dubai, and Sydney into the picture.

To get to the heart of the importance of cities to the global economy, it helps to specify the multiple global circuits through which cities connect across borders. Particular networks connect distinct

groups of cities, and by examining these linkages, details about the diverse roles of cities in the global economy can be better understood. For example, an examination of networks formed by the affiliates of global companies would show distinctive patterns. The top 100 global service firms together have affiliates in 315 cities worldwide. Among all firms considered “multinational,” the number of total overseas affiliates reaches one million. Affiliates are but one way of doing business abroad.

A new kind of global “map” can be drawn by exploring these networks. This global map becomes quite concentrated when what is getting traded is not butter or coffee, as such, but financial instruments based on those commodities. Global cities are the control points that organize and manage the multiple global economic spaces and their associated business activities. For example, key commodities are produced in well over 80 countries and are sold all around the world, but financial exchanges in only 20 cities control trading of the financial instruments representing these commodities globally. These 20 include New York and London, not surprisingly, but also Tokyo which is the largest trader exchange in platinum, São Paulo, one of the major traders in both coffee and gold, Buenos Aires, the major trader in sunflower, and Shanghai in copper. Finally, some of these centers are highly specialized in unexpected ways: for example, the London exchange controls the potato futures.

While global cities are clearly not the places where commodities are produced, they are where commodity futures are created to both facilitate the global trading of these commodities and manage the associated risks. This concept highlights the distinction between the sites and networks for producing the actual goods, and the sites and networks for managing and coordinating the trading of the goods and the financial instruments that facilitate their transaction and trade. And it makes concrete what is one of the main counterintuitive trends seen in today’s global economy: The more globalized, dispersed, and information-driven the activity, the more concentrated its global management map. This is a puzzle, especially since location in major cities brings added costs to the operations of firms

and exchanges. How global cities actually function reveals the clues to the answer.

Before developing that answer in detail, however, an examination of key aspects of this global map, such as the networks of global service firms, migration flows, and flight patterns, would be instructive. It would demonstrate subtle patterns of this global map, setting the stage for examining the role of cities in global commerce today.

### **Global Service Firms: Feeding Intercity Geographies**

This section focuses on the top 100 specialized corporate services firms in law, advertising, management consulting, accounting, and insurance. These firms operate in 315 cities worldwide, each firm with offices (either headquarters or branches) in at least 15 countries. Instead of covering all 315 cities or the leading cities as is usually done, the analysis focuses on a panel of 24 cities selected from the top 100 of these 315 cities. The purpose is a more in-depth look at the possible intercity geographies among cities at various rungs of the global hierarchy, both high and low; this can reveal unexpected and often hardly visible or known interconnections.

These global firms produce and deliver critical inputs for other firms and “markets”, and even governments, around the world. They service businesses involved in commodity trading and the futures markets, as well as for the financial services firms. They also service enterprises as diverse as architectural and engineering firms, major international art exhibitions, cultural events and biennales, and even avant-garde circuses.

Mapping their global operations shows almost the opposite of the sharp concentration of the financial futures exchanges mentioned above. The servicing operations of these firms are in demand everywhere. When countries open up to foreign businesses and investors and allow their markets to become integrated into the global market, it is often these foreign service firms that take over the supply of the most specialized services. This is one particular mapping of interconnectivity among a group of very diverse cities.

What follows is the pattern of how these 24 cities are connected through the office networks of the

100 firms. This information provides a microcosm of a pattern that repeats itself over and over with a variety of other types of transactions. Against this background, the connectivity measures of such office networks are very much a part of the infrastructure for the new global intercity geographies.

Even Turin and Lagos, the two lowest ranked cities in the sample of 24, with their considerable lower levels of connectivity, have some of these affiliates. Turin, with the lowest connectivity among the 24 cities, nonetheless houses offices of 14 of the 100 global firms, highlighting the extent to which these firms connect the world, albeit on their own specialized terms. Table 1 (following page) shows the overall connectivity of these cities among themselves for six major corporate services. These connectivity rankings would change if we had all the top global cities in the sample. But our purpose was to capture the existence of transversal intercity geographies, rather than a ranking of all cities.

Some of these outcomes reflect key patterns in the remaking of space economies. Berlin and Turin rank low because the major international financial and business centers in their respective countries, Frankfurt and Milan are extremely powerful in the global network and concentrate a growing share of all the global components in their national economies. This is a pattern that recurs in all countries. In banking and finance, Jakarta’s connectivity is high because it is a major and long established banking center for the Muslim world in Indonesia’s geopolitical region, and so of great interest to Western firms. Jakarta, however, is also in need of these firms in order to connect with the West. Shanghai’s connectivity is high because it is one of the major financial centers for the region, and has become the leading national stock market in China – with Hong Kong having retained its position as China’s leading international financial center in spite of the rise of Shanghai. South Korea is the 10th largest economy in the world, and has undergone significant deregulation since the 1997 Asian financial crisis. This has made Seoul an attractive site for Western financial firms, and foreign investors have been buying up a range of holdings in both South Korea and Thailand since 1997.

Dubai is an interesting case that points to the making of a whole new region, one not centered in

**Table 1. Select Cities:  
2007 Ranking and relative global network connectivity among 24 cities (all sectors)\***

Rank	All Service Sectors	Gross Connectivity	Proportional Connectivity	Relative Global Network Connectivity **
1	London	11,789	0.0874	1.000
2	New York	11,524	0.0855	0.978
3	Tokyo	8,533	0.0633	0.724
4	Milan	7,178	0.0532	0.609
5	Los Angeles	7,068	0.0524	0.600
6	São Paulo	6,561	0.0487	0.557
7	Mexico City	5,824	0.0432	0.494
8	Jakarta	5,782	0.0429	0.490
9	Buenos Aires	5,779	0.0429	0.490
10	Mumbai	5,579	0.0414	0.473
11	Shanghai	5,293	0.0393	0.449
12	Seoul	5,210	0.0386	0.442
13	Moscow	5,079	0.0377	0.431
14	Johannesburg	5,026	0.0373	0.426
15	Istanbul	5,004	0.0371	0.424
16	Manila	4,847	0.0359	0.411
17	Barcelona	4,770	0.0354	0.405
18	Caracas	4,317	0.0320	0.366
19	Bogotá	4,182	0.0310	0.355
20	Berlin	4,117	0.0305	0.349
21	Dubai	4,033	0.0299	0.342
22	Cairo	4,011	0.0297	0.340
23	Lagos	1,997	0.0148	0.169
24	Turin	1,343	0.0100	0.114

\* The six major specialized corporate services sectors are: banking/finance, management consulting, advertising, legal, accounting, and insurance. Calculations were made using the Taylor methodology applied to and measuring the connectivity among a sample of 24 cities.

\*\* London =100

the operational map of the top 100 global service firms. Only in the last few years has Dubai become an important financial and business center at the heart of a new emergent region that stretches from the Middle East to the Indian Ocean; its financial global connectivity is not principally derived from Western financial firms but is increasingly based on its own and the region's firms.

When these global connectivity measures are disaggregated by specialized sectors, there is considerable reshuffling because of the high level of specialization that marks the global economy. In accountancy, Mexico City and, perhaps most dramatically, Dubai and Cairo, move to the top. They are becoming deeply connected with global economic circuits and mediate between the larger global economy and their regions, offering the top global accounting firms plenty of business. In contrast, Shanghai moves sharply down – the global accounting firms have set up their operations in Beijing because access to the Chinese government remains critical.

Other sectors show similarly distinct rankings, generally due to misalignments between global standards for a particular sector and the specifics of the indigenous national systems.

Global insurance firms have clearly decided that locating in Johannesburg and Shanghai make sense, as they move to the top 10 among the 24 cities, signaling that the domestic insurance sector may not be sufficiently developed to satisfy firms and investors, allowing foreign insurance firms to gain a foothold. In contrast, the low connectivity of Seoul and Mumbai suggests that their domestic insurance sectors are competitive and capable of servicing their own countries.

The high connectivity for legal services in Moscow, São Paulo, and Shanghai (each of which moves into the top 10 in this sector) signals their need for Western-style legal services as foreign investors and firms multiply. São Paulo, for instance, hosts about 70 financial services firms from Japan alone, creating a need for extensive legal services to guide and assist their local operations.

In the management and consultancy sample, Buenos Aires, São Paulo, Seoul and Jakarta are ranked among the top 10 cities, in large part due to

the dynamic opening of their national economies in the 1990s, and the resulting opportunities for foreign and national firms and investors. Barcelona, Mumbai, and Cairo have drawn far fewer of the global 100 service firms in this sector either because the services can be provided adequately by local firms, as is the case in Mumbai and Cairo, or opportunities are to be found elsewhere, as is suggested by Spain's massive investments throughout Latin America, where the need for such services is located.

For the top 100 global advertising firms, Mumbai and Buenos Aires, both with rich cultural sectors and industries, provide a strong draw. Again, the weaker presence of global advertising firms in Cairo and Dubai is due to these cities' sharper orientation to their emergent region. Overall, London has the strongest presence of these global firms in the areas of accounting, banking/finance, and insurance; while New York is strongest in advertising and management consulting, where such dominance is due mostly to the sharp concentration of headquarters as well as branches.

This global map produced by the operations of the top 100 service firms is dramatically different from that produced by the financial trading of commodity futures, which is in turn, different from that of actual commodities trading. This particular intercity geography thus represents in very concrete terms one dimension of how of global commerce is connected as well as conducted.

## Other Feeders of Intercity Geographies: Airline Traffic

The dramatic increase in air travel worldwide in recent decades is well documented. The global map of air travel, however, is far broader than the network of global firms described above and involves hundred of cities.

The patterns of flight connectivity among the panel of 24 cities provide a measure of each city's share of the total flights among these cities.<sup>2</sup> Not unexpectedly, New York, London and Los Angeles have the largest number of connections within the

group of 24 and with the world, as shown in Table 2. New York dominates traffic with Latin America and Los Angeles with Asia, while London dominates global routes. Links among these three top hubs are strong. Furthermore, there are strong connections between particular sets of cities: Dubai and Cairo; Mumbai and Johannesburg; Johannesburg and London; Lagos and London; New York and Johannesburg. One of the strongest links is Shanghai and Tokyo, but also Shanghai and Taipei.

Six of our cities are among the top 20 of the 315 cities as measured by airline passenger traffic. In actual numbers of arrivals and departures, a handful of cities are among the top 150 cities with the largest numbers: London with 30 to 32 million; New York with 28 to 30 million; Paris, 18 to 20 million; Los Angeles, 16 to 18 million; Milan, 8 to 10 million; Madrid and Tokyo, 6 to 8 million. The numbers for Mexico, Dubai, São Paulo, Berlin, Mumbai, Johannesburg, and Seoul range from 4 to 6 million. Buenos Aires, Cairo, Istanbul, Shanghai, Jakarta, and Moscow handle between 2 to 4 million; and the remaining cities handle less than 2 million arrivals and departures. A detailed examination of the flight connectivity patterns of New York, Shanghai and Moscow is summarized in Appendix A.

## Global Commerce and Financial Centers

But the question remains: Why do cities play such a critical role in today's global commerce when electronic transactions operate virtually and 24/7? Why does a global market of electronic transactions need any financial center at all, let alone a network of them? Examining the utility of the network of financial centers helps answer the general question of why cities matter in today's global commerce.

The geography of global finance shows several major patterns. One is that the number of global financial centers began to grow sharply in the 1990s with the deregulation of their respective economies, a trend that continues today but at a slower rate. Mexico City, Buenos Aires, Istanbul, Mumbai, Shanghai, and numerous other financial centers joined the global

network in the 1990s. Such integration does not mean that all financial centers are located on the same financial circuits. Global finance is made up of multiple specialized circuits, each of which involves specific groups of cities.

A second major pattern is that notwithstanding the growth in the number of financial centers and in the overall volume of global finance, there is sharp concentration in the major centers. The commodities futures described earlier make this very clear. It is also evident in terms of the capital markets.

A third major pattern is the growing tendency of global finance to concentrate within a single financial center in each country, even when that country could be said to have multiple financial centers. This consolidation of one leading financial center in each country is due to rapid financial growth overall, not because the other centers are declining. In France, for example, Paris today concentrates a larger share of most financial sectors than it did 10 years ago, while once important stock markets like Lyon have become "provincial" even though Lyon is today the hub of a thriving economic region. Milan privatized its exchange in September, 1997, and electronically merged Italy's 10 regional markets. Frankfurt now concentrates a larger share of the financial market in Germany than it did in the early 1980s, and so does Zurich in Switzerland, which once had Basel and Geneva as significant competitors.

One may expect that this concentration inside some countries is due to the relatively small size of these countries. But that is not the case. In the U.S. for instance, the aggregate global financial sector in New York dwarfs all other U.S. financial centers, including Chicago. The fact that Chicago concentrates far more of the global commodity futures than New York does not significantly override New York's aggregate financial concentration. Sydney and Toronto, also in continental-sized countries, have taken over functions and market share from what were once competing centers, such as Melbourne and Montreal. São Paulo and Mumbai have similarly gained share and functions from previously competing centers in their own countries, such as Rio de Janeiro in Brazil, New Delhi and Calcutta in India. These are all huge countries with several major cities; one might have

**Table 2. Airline Traffic:  
2007 City rank and percentage in the 24-city system**

Rank 24-Cities World	Cities	Number of Passengers	Percent Among the Total 24 cities
1	<b>New York</b>	5,894,498	17.4
2	<b>London</b>	5,608,799	16.6
3	<b>Los Angeles</b>	4,228,342	12.5
4	<b>Tokyo</b>	2,131,225	6.3
5	<b>Milan</b>	1,606,643	4.7
6	<b>Seoul</b>	1,556,053	4.6
7	<b>Dubai</b>	1,499,039	4.4
8	<b>Mumbai</b>	1,120,655	3.3
9	<b>Mexico City</b>	1,106,001	3.3
10	<b>Manila</b>	1,055,638	3.1
11	<b>Barcelona</b>	1,052,455	3.1
12	<b>São Paulo</b>	976,122	2.9
13	<b>Buenos Aires</b>	915,310	2.7
14	<b>Johannesburg</b>	709,505	2.1
15	<b>Cairo</b>	695,659	2.1
16	<b>Istanbul</b>	603,942	1.8
17	<b>Shanghai</b>	583,653	1.7
18	<b>Berlin</b>	563,827	1.7
19	<b>Moscow</b>	491,618	1.5
20	<b>Caracas</b>	453,746	1.3
21	<b>Bogotá</b>	419,126	1.2
22	<b>Lagos</b>	243,215	0.7
23	<b>Jakarta</b>	220,399	0.7
24	<b>Turin</b>	131,598	0.4
	<b>Total (24 cities)</b>	<b>33,867,068</b>	<b>100.0</b>

thought that they could sustain multiple and similarly weighty financial centers. What has happened is, however, the exact opposite.

Why is it that at a time of rapid growth in global commerce conducted through “placeless” electronic transactions, there are such sharp trends towards concentration, both at the global level and within each country? Common sense would suggest that such concentration is neither necessary nor cost-effective.

Both globalization and electronic transactions are about expansion and dispersal beyond what had been the confined realm of national economies and location-bound local trading. Geographic dispersal would seem to be a good option given the high cost of operating in major financial centers. Furthermore, the geographic mobility of financial experts and financial services firms has risen sharply. In other words, the increasingly concentrated weight of major centers

inside each country is, in a way, counterintuitive. One might well ask why financial centers matter at all.

The clue to solving this puzzle lies in identifying the new conditions needed for success in today's global commerce. Cities have historically provided national economies, polities and societies with something that can be thought of as "centrality." The usual urban form for centrality has been "density," specifically a dense downtown. The economic functions delivered through urban density in cities are always a variety of agglomeration economies, no matter how much their content might vary. For example, while the financial sector is quite different from the cultural sector, both benefit from agglomeration; but the content of these benefits can vary sharply. One of the advantages of central urban density is that it has historically helped solve the risk of insufficient variety. It brings with it diverse labor markets, diverse networks of firms and colleagues, massive concentrations of diverse types of information on the latest developments, diverse marketplaces.

The new information and communication technologies (ICTs) should have neutralized the advantages of centrality and density. No matter where a firm or a professional is located, presumably there should be access to many of the needed resources. The fact is, however, that new ICTs have not eliminated centrality and density, nor have they diminished the role of cities as economic and physical entities. Even as economic activity has dispersed, the centers of a growing number of cities have expanded physically, either by simply spreading or by growing in a multinodal fashion.

The outcome is a new type of central space in these cities, one that can assume more varied formats, both physically and electronically. Geographically, the location and boundaries for these new centralities are not always those of the downtown; they can be metropolitan and regional. In this process, the geographic space in a city or metro area that becomes centralized often grows denser than it was in the 1960s and 1970s. This holds true for cities as different as Zurich and Sydney, São Paulo and London, Shanghai and Buenos Aires.

The global trend of expanded, newly built and rebuilt centralized urban spaces suggests an ironic turn

of event for the impact of ICTs on urban centrality. Clearly, the spatial dispersal of economic activities and workers at the metropolitan, national and global levels that began to accelerate in the 1980s actually represent only part of what is happening. New forms of territorial centralization of top-level management and control operations have appeared alongside these well-documented spatial dispersals.

Centrality remains a key feature of today's global commerce, but there is no longer a simple straightforward relationship between centrality and such geographic entities as the downtown or the central business district (CBD). Up until quite recently, the center was synonymous with the downtown or the CBD. Today, partly as a result of the impact of ICTs, the spatial correlates of the center can assume several geographic forms, ranging from the CBD to the new global grid that comprises networks of global cities.

A closer look at how the financial sector functions globally is illustrative. Three key sets of logic explain why cities matter more than ever before in global finance, arguably the most globalized and digitized sector, in a way that they had not been as recently as the 1970s.

The first one concerns the use of technology itself. When the new ICTs began to be widely used in the 1980s, many experts forecasted the end of cities as strategic spaces for firms in advanced sectors like finance. But it was only the routine activities that left cities while many other sectors kept expanding their operations within cities. Today's multinationals have over one million affiliates worldwide. But they also have expanded their central headquarter functions and fed their growth through buying more and more critical services that they once produced in-house.

What the experts overlooked is that when firms and markets use these new ICTs they do so with their own financial or economic objectives in mind, not the intended objectives of the engineers who designed the technology. The logics of users may well thwart or reduce the full technical capacities of the technology.<sup>3</sup> When firms and markets use new technologies to globalize their operations, their intention is not to relinquish control over their worldwide operations or the benefits it provides. In fact, because central

control is inherent in globalizing activities, companies' central operations expand as they expand their operations globally. The more powerful these new technologies are in allowing centralized control over globally dispersed operations, the more these central operations expand. The result has seen expanded head-office operations in major cities. The more ICTs enable global geographic dispersal of corporate activities, the more they produce density and centrality at the other end – the global cities in which their headquarter functions get done.

A second logic explaining the ongoing advantages of spatial agglomeration has to do with the complexity and specialization level of central functions. Complexity and specialization increase rapidly with globalization and with the added speed enabled by the new ICTs. As a result, global firms and global markets increasingly demand (and increasingly outsource) specialized legal, accounting, consulting and other related capabilities. These service firms in turn thrive in cities which offer complex and diverse environments that function as knowledge centers, with dense networks linking other specialized firms and highly skilled professionals with worldwide experience. The leading global cities in the world have just such environments that are needed by the specialized service firms as they expand to meet an increased need for their services.

A third logic concerns the meaning of information in global commerce today. There are two types of information. One is data, which may be complex yet is standard knowledge: the level at which a stock market closes, the announcement of the privatization of a public utility, the bankruptcy of a company, etc. But there is a far more difficult type of "information," akin to an interpretation/evaluation/judgment of the given data. It entails negotiating a series of interpretations of various data to arrive at insights that can guide strategic decisions. Access to the first kind of information is now global and immediate from just about any place in the developed world and increasingly in the rest of the world thanks to ICTs and the digital revolution. But it is the second type of information that requires a complicated mix of inputs, in which major financial centers have a leading edge.

Take for example the market intelligence needed to execute major international deals – no matter how

good one's ICT capability is, that level of intelligence cannot be gotten from any existing databases. Instead, it requires the social information loop and the associated expert interpretations and inferences that come with engaging and circulating information among talented, informed people. It is the critical role of this input that has given a whole new importance to credit-rating agencies, for instance. Part of the rating has to do with interpreting and inferring. When this interpreting becomes "authoritative" it then becomes "information" available to all. The process of making inferences/interpretations into "information" requires a complex mix of talents and resources that is most readily available in global cities.

In brief, the density of central places – global cities – provides just such social, business technical and research connectivity which allows a firm or market to gain control of its increasingly dispersed global operations. The impact of ICTs is a paradoxical one; it enables greater dispersion of business activities worldwide than ever before, while facilitating the rise of global cities as strategic hubs in today's global commerce.

## Conclusion

Among the first-tier global cities, a new urban economy is being formed. Even though many of these cities have been business and banking centers since the early 1970s and before, there have been dramatic changes in the structure of the business and financial sectors, and a sharp ascendance of a cultural sector. The sharp increases in the overall magnitude of these sectors, their weight in the urban economy and the critical mass of high-income professional jobs they generate have converged to alter the character of these cities, where new urban renaissance is evident.

A second tier of smaller and more regionally focused global cities are also emerging. In these emerging global cities a new urban service-centered core is gradually replacing the older type of manufacturing-oriented activities. As these second-tier global cities grow and develop, the dynamics of connectivity in global commerce are set to become more complex and challenging.

## Appendix A: Diverse Patterns of Flight Connectivity

Following are three maps that cover three very diverse patterns, one familiar and expected (New York, Table 3.a.), the other two less so (Shanghai and Moscow, Tables 3.b. and 3.c. respective).

**Table 3.a. New York: Flight Connectivity**

Rank	New York	Number of Passengers	Percent Among the Total 24 Cities
1	Los Angeles	1,697,593	28.80
2	London	1,609,337	27.30
3	Tokyo	312,208	5.30
4	Mexico City	281,749	4.78
5	Milan	207,392	3.52
6	Seoul	197,243	3.35
7	São Paulo	189,167	3.21
8	Mumbai	176,124	2.99
9	Buenos Aires	161,274	2.74
10	Cairo	140,307	2.38
11	Barcelona	116,815	1.98
12	Manila	105,530	1.79
13	Caracas	104,273	1.77
14	Istanbul	104,146	1.77
15	Moscow	97,044	1.65
16	Bogotá	95,104	1.61
17	Shanghai	70,488	1.20
18	Johannesburg	67,894	1.15
19	Berlin	56,789	0.96
20	Dubai	45,547	0.77
21	Lagos	40,492	0.69
22	Jakarta	8,996	0.15
23	Turin	8,986	0.15
	<b>TOTAL 23</b>	<b>5,894,498</b>	<b>100.00</b>

Table 3.b. Moscow: Flight Connectivity

Rank	Moscow	Number of Passengers	Percent Among the Total 24 Cities
1	London	137,281	27.92
2	New York	97,044	19.74
3	Milan	54,727	11.13
4	Berlin	54,136	11.01
5	Istanbul	29,351	5.97
6	Barcelona	24,012	4.88
7	Los Angeles	21,168	4.31
8	Tokyo	16,732	3.40
9	Dubai	16,147	3.28
10	Mumbai	6,056	1.23
11	Seoul	5,289	1.08
12	Cairo	5,017	1.02
13	Johannesburg	4,164	0.85
14	Buenos Aires	3,685	0.75
15	Mexico City	3,617	0.74
16	Shanghai	3,211	0.65
17	Turin	2,986	0.61
18	São Paulo	2,151	0.44
19	Caracas	1,428	0.29
20	Manila	1,063	0.22
21	Lagos	883	0.18
22	Bogotá	773	0.16
23	Jakarta	697	0.14
	<b>TOTAL 23</b>	<b>491,618</b>	<b>100.00</b>

**Table 3.c. Shanghai: Flight Connectivity**

Rank	Shanghai	Number of Passengers	Percent Among the Total 24 Cities
1	Los Angeles	151,019	25.87
2	Tokyo	131,956	22.61
3	Seoul	127,118	21.78
4	New York	70,488	12.08
5	London	38,475	6.59
6	Milan	13,284	2.28
7	Manila	8,184	1.40
8	Berlin	7,068	1.21
9	Barcelona	6,468	1.11
10	Istanbul	5,326	0.91
11	Jakarta	4,286	0.73
12	Dubai	3,432	0.59
13	Mumbai	3,284	0.56
14	Moscow	3,211	0.55
15	Johannesburg	2,964	0.51
16	Turin	2,075	0.36
17	São Paulo	2,047	0.35
18	Buenos Aires	948	0.16
19	Mexico City	849	0.15
20	Cairo	822	0.14
21	Lagos	192	0.03
22	Caracas	128	0.02
23	Bogotá	29	0.00
	<b>TOTAL 23</b>	<b>583,653</b>	<b>100.00</b>

(Footnotes)

- 1 This report is based in part of the proprietary research, conducted on behalf of MasterCard Worldwide, by Professor Saskia Sassen, Ralph Lewis Professor of Sociology at the University of Chicago and Centennial Visiting Professor at the London School of Economics. Final editorial responsibility rests with Dr. Yuwa Hedrick-Wong, economic advisor, MasterCard Worldwide in Asia/Pacific.
- 2 This information was derived from a far larger sample produced by Ben Derudder at the University of Ghent, who has kindly made it available for public use. For details of the data set, see Derudder, Ben and F. Wiltox 2005. "An appraisal of the use of airline data in assessing the world city network: A research note on data." *Urban Studies* 42 (13): 2371-2388.
- 3 For more details on how technical logics is thwarted by the economic, financial, or for that matter, cultural and political logics of users, see S. Sassen 2001, *The Global City*. Princeton and Oxford: Princeton University Press.



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